

COURSE SCHEME**BTECH IN MINING ENGINEERING****SEMESTER I**

S. No.	Code	Course Title	Credit
1	8BSC101	Physics	4
2	8BSC102	Mathematics I	4
3	8ESC101	Basic Electrical Engineering	4
4	8ESC102	Engineering Graphics & Design	2
5	8HSMC101	English	3
PRACTICAL /SESSIONAL			
1	8BSC101P	Physics Lab	1
2	8ESC101P	Basic Electrical Engineering Lab	1
3	8ESC102P	Engineering Graphics & Design Lab	1
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SEMESTER II

S. No.	Code	Course Title	Credit
1	8BSC103	Chemistry	3
2	8BSC104	Mathematics II	4
3	8ESC103	Programming for Problem Solving	3
4	8ESC104	Workshop Practice	2
5	8MC101	Environmental Science	3
6	8VAC101	Character Building and Holistic Development of Personality 1 (Spritual & Mental Health)	2
PRACTICAL /SESSIONAL			
1	8BSC103P	Chemistry Lab	1
2	8ESC103P	Programming for Problem Solving Lab	1
3	8ESC104P	Workshop Practice Lab	1
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NOTE: Mandatory Vocational /Industrial Training (4 Weeks) of 4 credits or any specialized course of minimum 4 credits for student opting for exit after first year with UG CERTIFICATE.

SEMESTER III			
S. No.	Code	Course Title	Credit
1	8BSC201	Mathematics III	3
2	8ESC201	Engineering Mechanics	3
3	8PCCMiE201	Elements of Mining Technology	3
4	8PCCMiE202	Mining Geology I	3
5	8PCCMiE203	Basic Mine Surveying	3
6	8HSMC201	Effective Technical Communication	2
7	8UMC102	**Community Engagement and Social Responsibility	2
PRACTICAL/ SESSIONAL			
1	8PCCMiE202P	Mining Geology I Lab	1
2	8PCCMiE203P	Basic Mine Surveying Lab	1
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** Only Viva Voce will be conducted.

SEMESTER IV			
S. No.	Code	Course Title	Credit
1	8ESC202	Thermodynamics & Fluid Mechanics	3
2	8PCCMiE204	Elements of Rock Mechanics	3
3	8PCCMiE205	Mining Geology II	3
4	8PCCMiE206	Surface Mining	3
5	8PCCMiE207	Mine Surveying & Geospatial Technology	3
6	8PCCMiE208	Drilling & Blasting Technology	3
7	8VAC201	Character Building and Holistic Development of Personality 2 (Yoga and Physical Fitness)	2
PRACTICAL/ SESSIONAL			
1	8PCCMiE204P	Elements of Rock Mechanics Lab	1

2	8PCCMiE205P	Mining Geology II Lab	1
3	8PCCMiE207P	Mine Surveying & Geospatial Technology Lab	1
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Vocational Training in a Surface / Underground Mine of minimum 30 (Thirty) days to be taken at the end of IVth Semester Will be Credited in Vth Semester.

NOTE: Mandatory Vocational /Industrial Training (4 Weeks) of 4 credits or any specialized course of minimum 4 credits for student opting for exit after first year with UG DIPLOMA.

SEMESTER V			
S. No.	Code	Course Title	Credit
1	8PCCMiE301	Mining Machinery I	3
2	8PCCMiE302	Mines & Mineral Economics	3
3	8PCCMiE303	Underground Coal Mining	3
4	8PCCMiE304	Operational Research in Mining	3
5	8PCCMiE305	Ventilation & Climate Control	3
OPEN ELECTIVE COURSE I(Any one of the following subjects)			3
6	8OEC301	Indian Knowledge System (IKS)- Concepts and Applications in Engineering	
	8OEC302	Plastic Waste Management	
	8OEC303	Enterprenurship	
		Any subject from MOOCS	
PRACTICAL / SESSIONAL			
1	8PCCMiE305P	Ventilation & Climate Control Lab	1
2	8PROJMiE301	Vocational Training Report	3
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SEMESTER VI			
S. No.	Code	Course Title	Credit
1	8PCCMiE306	Mining Machinery II	3
2	8PCCMiE307	Underground Metal Mining	3

3	8PCCMiE308	Advanced Underground Mining	3
4	8PCCMiE309	Applied Rock Mechanics	3
5	8PCCMiE310	Mine Environmental Engineering	3
6	8VAC301	Character Building and Holistic Development of Personality 3 (Universal Human Values and Ethics)	2
7	OPEN ELECTIVE COURSE II (Any one of the following subjects)		3
	8OEC304	Data Analytics	
	8OEC305	Mine Automation & IOT	
	8OEC306	Mine Electrical Engineering	
		Any subject from MOOCS	
PRACTICAL / SESSIONAL			
1	8PCCMiE309P	Applied Rock Mechanics Lab	1
2	8PCCMiE310P	Mine Environmental Engineering Lab	1
2	8PCCMiE311P	Computer Aided Mine Planning Lab	1
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SEMESTER VII			
S. No.	Code	Course Title	Credit
1	8PCCMiE401	Mine Legislation & Safety I	3
2	8PCCMiE402	Mine Hazards & Risk	3
3	8PCCMiE403	Mine Planning	3
4	DEPARTMENTAL ELECTIVE COURSE I (Any one of the following subjects)		3
	8DECMiE401	Mine Closure	
	8DECMiE402	Dimensional Stone Mining	
	8DECMiE403	Design of Open Pit Mines	
	8DECMiE404	Mine Management	
	8DECMiE405	Mine Ventilation Planning	
5	8HSMC401	**Seminar in Executive Communication	2
PRATICAL / SESSIONAL			

1	8PROJMiE401	Mining Project Work I	6
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** Only Viva Voce will be conducted.

SEMESTER VIII			
S. No.	Code	Course Title	Credit
1	8PCCMiE404	Mine Legislation & Safety II	3
2	8PCCMiE405	Mineral Processing Technology	3
3	DEPARTMENTAL ELECTIVE COURSE II (Any one of the following subjects)		3
	8DECMiE406	Mine Reclamation & Rehabilitation	
	8DECMiE407	Clean Coal Technology	
	8DECMiE408	Coal bed Methane Mining	
	8DECMiE409	Socio Economic Impacts of Opencast Mines	
	8DECMiE410	Sustainable Mining Practices	
4	8UMC101	***Managing Personal Finance	0
PRACTICAL / SESSIONAL			
1	8PCCMiE405P	Mineral Processing Technology Lab	1
2	8PROJMiE402	Mining Project Work II	6
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*** Only Internal Exam will be conducted.

